



ARCHITECT - ENGINEER CONTRACT

1. CONTRACT NO

NAS1- 98128

2. DATE OF CONTRACT

9-30-98 (Effective 11-1-98)

3A. NAME OF ARCHITECT-ENGINEER

Sverdrup Technology, Inc.

3B. TELEPHONE NO. (Include Area Code)

(931) 393-6211

4. DEPARTMENT OR AGENCY AND ADDRESS (Include ZIP Code):

**National Aeronautics and Space Administration
Langley Research Center
Hampton, VA 23681-2199
(757) 864 - 2435**

5. PROJECT TITLE AND LOCATION

Multi-Discipline Architect-Engineer Services for Langley Research Center, Hampton, Virginia.

6. CONTRACT FOR (General description of services to be provided):

Multi-Disciplined Architect-Engineer Services for Langley Research Center, Hampton, Virginia, in accordance with NASA Solicitation 1-073-GGK.1443, dated February 23, 1998

7. CONTRACT AMOUNT (Express in words and figures):

CLIN	BASE YEAR	OPTION YEAR 1	OPTION YEAR 2	OPTION YEAR 3	OPTION YEAR 4
01 (Maximum Fixed Price)	\$1,000,000	\$1,800,000	\$1,800,000	\$1,800,000	\$1,800,000
02 (Firm Fixed Price)	\$456,750	\$458,649	\$460,549	\$462,450	\$464,351
03 (Maximum CPIF)	<u>\$1,250,000</u>	<u>\$1,250,000</u>	<u>\$1,250,000</u>	<u>\$1,250,000</u>	<u>\$1,250,000</u>
TOTALS:	\$2,706,750	\$3,508,649	\$3,510,549	\$3,512,450	\$3,514,351

8. NEGOTIATION AUTHORITY

41 U.S.C. 541

9. ADMINISTRATIVE APPROPRIATION AND ACCOUNTING DATA

PR:	GGL.2 111	GGK.1392	GGL.1329	GGL.1329	GGL.1329	GGL.1329
JO:	C974908	C207401	C137900	C200101	C200202	C455801
OC:	2530	2530	2530	2530	2530	2530

Invoices shall be submitted to and payment will be made by:

**Chief, Financial Management Division, Mail Stop 175
NASA, Langley Research Center
Hampton, VA 23681-2199**

10. The United States of America (called the Government) represented by the Contracting Officer executing this contract, and the Architect-Engineer agree to perform this contract in strict accordance with the clauses and the documents identified as follows, all of which are made a part of this contract:

Contract Schedule

Part I, Sections B through H

Contract Clauses

Part II, Section I

List of Documents, Exhibits and Attachments

Part III, Section J

Representations and Instructions

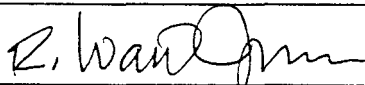
Part IV, Sections K and L

If the parties of this contract are comprised of more than one entity, each entity shall be jointly and severally liable under this contract

SIGNATURES

NAMES **AND** TITLES (*Typed*)

A



R. Ward Johnson, Jr.
Vice President - Sverdrup Technology, Inc.

B

C

D

12. THE UNITED STATES OF AMERICA

Rosemary C. Froehlich

Typed Name of Contracting Officer



Signature of Contracting Officer

TABLE OF CONTENTS

PART I - THE SCHEDULE	2
SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS	2
B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED	2
B.2 TYPE OF CONTRACT	2
B.3 FIXED PRICE, ESTIMATED COST AND INCENTIVE FEE	2
B.4 MINIMUM AND MAXIMUM ORDER QUANTITIES, CLIN 01 AND CLIN 03	2
B.5 CONTRACT FUNDING (NASA 1852.232-81) (JUN 1990)	2
B.6 LABOR CATEGORIES	3
SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT	4
C.1 STATEMENT OF WORK - MULTIDISCIPLINE ARCHITECT-ENGINEERING SERVICES	4
SECTION D - PACKAGING AND MARKING	16
D.1 PACKING, PACKAGING AND MARKING	16
SECTION E - INSPECTION AND ACCEPTANCE	16
E.1 FINAL INSPECTION AND ACCEPTANCE--ALTERNATE I (LaRC 52.246-94) (OCT 1992)	16
SECTION F - DELIVERIES OR PERFORMANCE	16
F.1 DELIVERY	16
F.2 PERIOD OF PERFORMANCE (LaRC 52.211-91) (AUG 1997)	16
F.3 PLACES OF PERFORMANCE — ALTERNATE II (LaRC 52.211-98) (OCT 1992)	15
SECTION G - CONTRACT ADMINISTRATION DATA	17
G.1 NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING (NASA 1852.242-73) (JUL 1997)	17
G.2 INCENTIVE FEE	17
G.3 INCENTIVE FEE AUDIT	19
G.4 SUBMISSION AND PAYMENT OF VOUCHERS	20
G.5 PROCEDURES FOR ISSUING TASK ORDERS	20
G.6 CONTRACT CLOSEOUT (LaRC 52.242-90) (JUN 1988)	21
G.7 PROVIDING FACILITIES TO CONTRACTORS (LaRC 52.245-90) (AUG 1997)	22
G.8 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (NASA 18-52.245-71) (JULY 1997)	22
G.9 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (NASA 18-52.245-77) (JUL 1997)	23
SECTION H - SPECIAL CONTRACT REQUIREMENTS	23
H.1 RESERVED	23
H.2 SITE VISIT	23
H.3 SECURITY PROGRAM/FOREIGN NATIONAL EMPLOYEE INVESTIGATIVE REQUIREMENTS (LaRC 52.204-91) (AUG 1997)	23
H.4 WORK SCHEDULE--ON-SITE ONLY	24
H.5 OBSERVATION OF REGULATIONS AND IDENTIFICATION OF CONTRACTOR'S EMPLOYEES (LaRC 52.211-104) (MAR 1992)	24
H.6 INCORPORATION OF SECTION K OF THE PROPOSAL BY REFERENCE (LaRC 52.215-107) (JUN 1998)	24
H.7 EVIDENCE OF INSURANCE	24
H.8 VIRGINIA AND LOCAL SALES TAXES (LaRC 52.229-92) (APR 1992)	24
H.9 YEAR 2000 COMPLIANCE (MAY 1998)	25

TABLE OF CONTENTS

H.10	TERMINATION	25
H.11	STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.22242) (MAY 1989).....	25
H.12	OPTIONS.....	27
H.13	SAFETY AND HEALTH	29
PART II _CONTRACT CLAUSES		30
SECTION I _CONTRACT CLAUSES		30
PART III _LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS.....		39
SECTION J _LIST OF ATTACHMENTS		39

PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED

The Contractor shall, to the extent specified herein, furnish all personnel, facilities, services, supplies, equipment and materials necessary to provide complete professional architectural and engineering design support, construction management and inspection services, general drafting, surveying, SPECSINTACT system support, and engineering library support, as specified in C.1, Statement of Work. Whenever the term "Statement of Work" is used throughout this contract, it is understood to also refer to the "Statement of Architect-Engineer Services".

B.2 TYPE OF CONTRACT

This is a hybrid fixed-price, cost-plus-incentive-fee and indefinite quantity contract.

CLIN 01 – Part III, Section 1.0, Professional Services, and Part III, Section 2.1, General Drafting, of C.1, Statement of Work, will be indefinite quantity type. The Government will order deliveries or performance under CLIN 01 by issuance of firm fixed-price Task Orders (TOs), pursuant to G.5, Procedures for Issuing Task Orders.

CLIN 02 – Part III, Sections 2.2 through 2.4 Surveying, SPECSINTACT System Support, and Engineering Library Support, of C.1, Statement of Work, will be firm fixed price.

CLIN 03 – Part III, Section 2.5 Construction Phase Support, of C.1, Statement of Work, will be indefinite quantity type. The Government will order deliveries or performance under CLIN 03 by issuance of cost-plus-incentive-fee TOs, pursuant to G.5, Procedures for Issuing Task Orders.

B.3 FIXED PRICE, ESTIMATED COST AND INCENTIVE FEE

- (a) The total fixed price for CLIN 02 is **\$456,750**.
- (b) The total fixed price for CLIN 01 will be as set on individual FFP task orders.
- (c) The total estimated cost and incentive fee for CLIN 03 will be as set forth on individual CPIF task orders.

B.4 MINIMUM AND MAXIMUM ORDER QUANTITIES, CLIN 01 AND CLIN 03

- (a) The minimum and maximum quantities of CLIN 01 are \$10,000 and \$1,000,000, respectively.
- (b) The minimum and maximum quantities of CLIN 03 are \$50,000 and \$1,250,000, respectively.

B.5 CONTRACT FUNDING (NASA 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$70,298.00**. This allotment is for the performance of work in accordance with the limitations and completion dates as set forth in task assignments authorized by the Contracting Officer.

(b) An additional amount of \$5,624.00 is obligated under this contract for payment of fee.

NOTE: B.5 is applicable to CLIN 03 only.

B.6 LABOR CATEGORIES

The following is a list of labor categories and their associated fully burdened fixed hourly rates that are applicable to CLIN 01 and CLIN 03. These labor categories and rates will be used by the Government to establish target cost for individual TOs.

Labor Categories	Fully Burdened Rate per Hour	Fully Burdened Overtime Rate Der Hour
<u>Contractor Site</u>		
Project Manager	\$86.82	\$86.82
Senior Engineer/Architect	75.69	75.69
Engineer/Architect	71.34	71.34
Junior Engineer/Architect	54.87	54.87
General Clerk I	20.49	24.53
General Clerk II	25.20	30.17
General Clerk III	31.34	37.52
General Clerk IV	35.05	41.95
Secretary I	25.89	31.00
Secretary II	30.15	36.09
Secretary III	34.57	41.38
Secretaw IV	40.37	48.32
Secretary V	42.37	50.72
Word Processor I	27.92	33.42
Word Processor II	31.46	37.66
Drafter I	28.12	33.66
Drafter II	31.64	37.87
Drafter III	39.75	47.59
Drafter.IV	48.29	57.81
Engineering Technician IV (Designer I)	51.23	61.33
Engineering Technician V (Designer II)	59.84	71.63
Enaineerina Technician VI (Desianer III)	73.93	88.50
<u>Government Site</u>		
CM/Inspector	49.81	49.81
Supervisor inspector	45.14	45.14
Secretaw I	21.80	26.91
Secretary II	25.38	31.32
Secretary III	29.10	35.90
Secretary IV	33.98	41.93
Secretary V	35.66	44.01
Inspector	39.96	49.32
Radiograph Monitor	21 36	26 37

Labor Categories	Rate per Hour	Overtime Rate per Hour
<u>Contractor Site</u>		
Project Manager	\$78 93	\$78 93
Senior Engineer/Architect	68 81	68 81
Engineer/Architect	64 85	64 85

Junior Engineer/Architect	49.88	49.88
General Clerk I	18.63	22.30
General Clerk II	22.91	27.43
General Clerk III	28.49	34.11
General Clerk IV	31.86	38.14
Secretary I	23.54	28.18
Secretary II	27.41	32.81
Secretary III	31.43	37.62
Secretary IV	36.70	43.93
Secretary V	38.52	46.11
Word Processor I	25.38	30.38
Word Processor II	28.60	34.24
Word Processor III	32.02	38.33
Drafter I	25.56	30.60
Drafter II	28.76	34.43
Drafter III	36.14	43.26
Drafter IV	43.90	52.55
Engineering Technician IV (Designer I)	46.57	55.75
Engineering Technician V (Designer II)	54.50	65.12
Engineering Technician VI (Designer III)	67.21	80.45
Government Site		
CM/Inspector	45.28	45.28
Supervisor Inspector	41.04	41.04
Secretary I	19.82	24.46
Secretary II	23.07	28.47
Secretary III	26.45	32.64
Secretary IV	30.89	38.12
Secretary V	32.42	40.01
Inspector	36.84	45.60
Radiograph Monitor	19.70	24.36

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.I STATEMENT OF WORK - MULTIDISCIPLINE ARCHITECT-ENGINEERING SERVICES

Part I - General

1.0 Introduction

Langley Research Center (LaRC) possesses a wide variety of unique aeronautical/aerospace research and institutional facilities. A continual rehabilitation program ensures that these facilities are well maintained and capable of providing state-of-the-art testing. New facilities are also periodically developed to expand the Center's capabilities. These facilities must be highly reliable, economical, and have low maintenance cost. The Facility Systems Engineering Division (FSED) at LaRC is the responsible organization for the above work.

2.0 Standards and Constraints

All designs, material selections, drawings, specifications, and other documentation produced under this contract shall conform to nationally accepted codes and standard

practices. This shall include the NASA Facility Project Implementation Handbook, NASA Policy Guidance (NPG) 8820.28 and drawing requirements as contained in Engineering Drawing System, Langley Policy Guidance (LAPG) 7320.1. Generally, all drawings shall be computer-generated in AutoCAD, release 14 or later format and shall be in SI - Metric or English Units as directed in the TO. Where appropriate, specific standards and constraints will be included in each TO.

Part II - Scope of Work

1.0 Professional Services

The Contractor shall produce complete architectural-engineering designs, cost estimates and analyses, and prepare construction contract drawings and specifications for institutional facilities, site work, and utility systems at LaRC. Professional Services include the following tasks:

- 1.1 Special studies and reports
- 1.2 Requirements definitions and analyses
- 1.3 Conceptual, preliminary and final designs

Specific requirements for any of the above Professional Services will be included in each TO. TOs will require work in the following areas:

Civil, Structural, and Architectural Design

The Contractor shall provide facility designs, which make the architectural, structural, electrical, and mechanical systems compatible with the facility function. The designs shall include functional and environmental relationships, economy in construction and maintenance, and considerations for health and safety while providing the flexibility necessary to permit future expansion. The work shall include site selection, utility development, civil work, selection and use of materials and structural framing systems. Designs shall be compatible with clear space and span requirements, applicable fire protection classification, foundation conditions, architectural treatment guides, and consideration of climate conditions and structural design loads for the specific facility and location. The Contractor shall provide facility and equipment layout options as specified in TOs and advise the Government as to the specific advantages of each of these schemes.

Mechanical Systems Design

The Contractor shall provide mechanical system design of heating, plumbing, fire protection, ventilating, and air conditioning systems.

The air conditioning systems shall provide year-round automatic temperature control. The design of the equipment shall be based on a study of air conditioning requirements, extent of control required, appearance of appurtenances in occupied spaces, type of cooling source, nature of occupancy, building structure, and any other factors peculiar to the project. Special attention shall be given to the incorporation of energy conservation devices such as enthalpy control for economizer cycle, timers for night setback, and weekend shutdown. Where applicable, controls for air conditioning systems shall be compatible with existing control systems at LaRC.

Designs shall conform to the latest editions of ASHRAE Guide and Data Books, including Standard 90-80, ASME Codes, ANSI Safety Codes for Mechanical Refrigeration,

SMACNA Duct Manual, National Fire Protection Association, BOCA Plumbing Code, and Public Law 91-596 Occupational Safety and Health Act, unless otherwise specified in TOs.

Electrical Systems Design

The Contractor shall provide electrical system designs for projects including power, lighting, fire alarm, grounding, controls, communications, and associated systems necessary for the operation of facilities. The designs shall conform to the provisions of Public Law 91-596 Occupational Safety and Health Act; and the latest editions of the National Electrical Code; National Electrical Manufacturers Association; American National Standards Institute; Insulated Power Cable Engineers Association; the Illuminating Engineering Society; the National Electrical Safety Code; and ASHRAE Guide and Data Books, including Standard 90-80.

2.0 Incidental Services

The Contractor shall provide incidental services to support design and construction.

Incidental services shall include:

- 2.1 General Drafting
- 2.2 Surveying
- 2.3 SPECSINTACT System Support
- 2.4 Engineering Library Support
- 2.5 Construction Phase Support

Part III - Contractor Tasks

1.0 Professional Services – CLIN 01

As directed in TOs issued by the Government, the Contractor shall perform the professional services listed below to support the improvement of existing facilities and the development of new facilities at NASA - LaRC.

1.1 Special Studies and Reports

The Contractor shall perform engineering analyses including feasibility studies, technology assessments, trade-off studies, third-party reviews, and failure analyses. The Contractor shall prepare reports, which document studies and analyses and provide formal and informal briefings.

1.2 Requirements Definition and Analysis

The Contractor shall be responsible for derivation of project requirements from basic information supplied by the Government. Project requirements shall be based on analysis of system requirements with respect to subsystem and integrated systems concepts, cost, schedule, benefit, risk, feasibility, operability, maintainability, reliability, and related considerations. The Contractor shall participate in Preliminary Requirements Reviews and deliver Requirements Documents as specified in TOs.

1.3 Design

1.3.1 Conceptual Designs

The Contractor shall be responsible for obtaining data upon which to develop design concepts; performing preliminary analyses and studies; and preparing sketches, diagrams, layout plans, preliminary cost estimates, and preliminary development schedules. The Contractor shall participate in Conceptual Design Reviews as specified in TOs.

1.3.2 Preliminary Designs

The Contractor shall be responsible for development of preliminary drawings and critical analyses; identification of long-lead procurement items; refined cost estimates and schedules; detailed plans for completion of final design; and initial plans for procurement, fabrication, installation, integrated systems testing, and activation of designed systems. The Contractor shall prepare and deliver presentations at Preliminary Design Reviews as specified in TOs.

1.3.3 Final Designs

The Contractor shall produce final designs based on the functional and technical requirements, while remaining within the project scope, schedule, and budgetary parameters. Final designs shall include all documents necessary for the system development, including engineering analyses, drawings, specifications, detailed cost estimates, fabrication and assembly schedules, and associated supporting documentation. Final designs shall include development of an inspection plan, which identifies the critical inspection points for the project. Final designs shall conform to NPG 8820.28 NASA Facility Project Implementation Handbook, and specific requirements provided in TOs.

Drawings and specifications shall be completely detailed. Brand name or equal product specifications shall provide salient characteristics by which "equals" can be evaluated. Merely specifying a manufacturer's part number or equal will not be acceptable. The Contractor shall review all engineering calculations and drawings and shall so indicate on the respective documents. The Contractor shall prepare and deliver presentations at Critical Design Reviews as specified in TOs.

2.0 Incidental Services

2.1 General Drafting – CLIN 01

The Contractor shall perform general drafting services, as directed by the Government in TOs. The Contractor shall provide new drawings and revisions to existing drawings from engineering sketches and redline markups for electrical, piping, architectural, civil engineering and mechanical disciplines.

2.1.1 The Contractor shall perform manual drafting. Manual drafting shall consist of revisions to existing drawings that do not have an electronic database. The Contractor shall match lettering style, line weight,

symbolology, and detail configuration with the content of the original drawing, and shall deliver the completed product within the schedule specified for each TO.

- 2.1.2 The Contractor shall perform computer-aided drafting using AutoCAD and Pro Engineer software. For task orders specifying pro engineer, NASA will provide a non-site workstation and software. Computer-aided (electronic) drafting shall consist of preparing new drawings and revising existing drawings in the disciplines specified in paragraph 2.1. New drawings shall conform to drafting standard MIL-STD-100E unless otherwise specified by TO. The Contractor shall provide electronic drawings that conform to the specified standard and shall deliver the completed product within the schedule specified for each TO.
- 2.1.3 The Contractor shall update NASA-LaRC systems drawing sets. Drawing sets include electrical metering drawings, substation switching diagrams, panel location plans, one-line electrical plans and other similar sets. Information for updating these drawing sets will be provided by NASA-LaRC or, if specified in the TO, shall be obtained by the Contractor through field investigation. The Contractor shall match the lettering style, line weights, symbolology and detail configuration found on the existing NASA-LaRC drawing and shall deliver the completed project within the schedule specified for each TO.
- 2.1.4 The Contractor shall perform quality assurance checks and reviews on all Contractor-generated new drawings and on revisions to existing drawings before submission to NASA-LaRC. Accuracy and conformance to standards shall be the Contractor's responsibility. The work delivered shall comply with the specified drafting standard and be technically complete. Any re-work to correct discrepancies shall be completed within 48 hours after notification of the discrepancies.

2.2 Surveying – CLIN 02

The Contractor shall provide surveying services for NASA-LaRC. Requests for services may be verbally issued by the NASA - LaRC Underground Utilities Coordinator, or his designated alternate.

- 2.2.1 The Contractor shall perform field-surveying services to support NASA-LaRC's digging permit system. The Contractor shall perform field work with pipe locators, cable locators, and conventional survey equipment for locating and marking existing underground utilities to preclude damage during construction and maintenance activities.

The utility marking shall be thorough and accurate. Accuracy is defined by comparing the actual location of exposed utilities to the Contractor's markings. Accuracy requirements for marking utilities shall be ± 2 Ft. in the horizontal plane and ± 1 Ft. in the vertical plane. Thoroughness and accuracy will be determined using data from the inspection reports and feedback regarding construction problems, which arise due to incomplete marking of the utilities.

Based on historical data, it is expected that the Contractor will be required to issue approximately 300 digging permits during a 12-month

period. The digging permit procedure is outlined in Exhibit A. The Contractor shall respond to the specified site location for emergency digging permit requests (broken water lines, etc.) within 20 minutes of notification. The Contractor shall maintain a log of all requests and response times for each work assignment.

- 2.2.2 The Contractor shall obtain and record as-built information, during and after construction, of above and below grade utilities. The Contractor shall conduct field measurements with conventional survey equipment to determine horizontal and vertical positions of above and below grade utilities, structures and topographic features. Data obtained shall be expressed in the Virginia (Lambert) Plane Coordinate System. All as-built information and supporting field notes shall become the property of the Government and shall be delivered to the Government within 1 working day of any request. Accuracy requirements for determining as-built dimensions shall be ± 0.25 Ft. for horizontal location and ± 0.1 Ft. for vertical location (elevation) of below grade utilities, and ± 0.05 Ft. in both planes for structures and topographic features.

The Contractor shall coordinate with the construction inspection unit and construction Contractor and insure that as-built information for all new below-grade utilities is recorded prior to backfill. The number of requests for acquiring as-built information will approximate the number of digging permits issued each year.

- 2.2.3 The Contractor shall perform surveying services to establish horizontal and vertical reference points in support of facility construction and research projects. The Contractor shall use various types of field surveying and techniques such as topographic surveys, triangulation, traversing, differential leveling and construction surveying. The Contractor shall work in the Virginia State Lambert Coordinate System and the Geodetic Coordinate System. The work will include, but will not be limited to, verification of building layouts, concrete forms, anchor bolt placement, and centerlines for research equipment and wind tunnel structures. The Contractor shall perform surveying operations with conventional and GPS survey equipment. NASA will provide GPS equipment on short term loan for NASA specified requirements.

Accuracy requirements for this work are third order survey accuracy for field surveys, 20.01 Ft. for construction surveys, and ± 0.005 Ft. for research equipment centerlines.

- 2.2.4 The Contractor shall continuously update and maintain NASA-LaRC's underground utility drawing sets to reflect current as-installed information in accordance with the Digging Permit Procedure. NASA-LaRC will provide the electronic database for the underground utility drawings and supporting as-built files at contract startup. The Contractor shall be responsible for the accuracy and completeness of all subsequent updates/revisions during the term of this contract. The Contractor shall perform revisions to NASA-LaRC's underground utility drawings in AutoCAD and ARCINFO format, and work within NASA-LaRC's GIS. The Contractor's field notes and other as-built information shall be added to NASA-LaRC's as-built files, and returned to the NASA - LaRC Underground Utilities Coordinator with the as-built files at the end of the

contract. Over the past three years, there has been an average of 114 requirements per year for this type of work.

Accuracy requirements for plotting revisions shall be ± 1 Ft. on $1" = 30$ Ft. scale drawings, ± 5 Ft. on $1" = 100$ Ft. scale drawings, and ± 10 Ft. on $1" = 300$ Ft. scale drawings.

2.3 SPECSINTACT System Support – CLIN 02

The Contractor shall provide, on-site in Building 1209 at LaRC, the necessary SPECSINTACT operation and file clerk/librarian services to support a Facility Construction Program which has averaged approximately \$15M/Year. Over the past two years, this support has provided yearly averages of 76 new specifications, 103 tasks to revise specifications, and 7 updates to the local master sets of the specifications. The average size of the new specifications has been 188 pages. The Contractor shall provide all necessary clerical services to operate and maintain the SPECSINTACT system for the preparation of construction specifications. The work will be issued via individual SPECSINTACT Work Request Forms, through NASA - LaRC's Facility Systems Engineering Division or from within the Contractor's organization.

The Contractor shall provide construction contract specifications, utilizing SPECSINTACT, the Government's computerized storage, selective retrieval, and rapid printout of standard construction specifications. The work includes receipt of draft specifications, which include marked-up copies of SPECSINTACT shelf masters with hand-written or typed inserts of sentences, paragraphs or entire specification sections, from a variety of sources. Proofreading and producing final versions of specifications shall be in accordance with standard format and the work request. Incidental typing to produce final specifications may also be required. This will include data sheets and other technical specification attachments.

2.3.1 Performance Requirements for SPECSINTACT Support

The standard turn-around time for SPECSINTACT work is as follows:

Specification Processing - Job timeliness shall be measured in terms of the total workdays elapsed from receipt of a work request at the SPECSINTACT support unit until its delivery to the requestor.

First Pull jobs - Performance Standard is complete specifications returned to the initiator within 6 workdays. A first pull job is defined as the first printed version of the specification (draft).

Complete job revision - Performance Standard is a complete specification returned to the initiator within 5 workdays. A complete job revision is defined as the first printed version of the entire specification.

Partial job revision - Performance Standard is a complete specification returned to the initiator within 3 workdays. A partial job revision is defined as correction or additions to pages or sections.

Turn-around time for high priority work shall be 1 workday. High priority work is approximately 5% of the overall SPECSINTACT work.

2.4 Engineering Library Support – CLIN 02

The Contractor shall provide construction contract submittal processing and technical file services. These services involve receiving, copying, routing, and tracking construction contract submittals and responses; and maintaining and operating the technical engineering files and the technical library of the Facility Systems Engineering Division. Maintaining the technical library includes keeping the Visual Search Microfiche (VSMF) system current. The VSMF system **is** a collection of Government, industry, manufacturer and professional society standards, specifications, codes, and product data that serves as a reference source. The work includes maintaining the currency of the materials, both microfilm and hard copy, and providing user assistance. The submittal processing services shall be provided for all construction activities at LaRC; therefore the Reviewer referred to below could be an employee of the Contractor or a NASA employee.

Work will be issued via individual work requests through NASA - LaRC's Facility Systems Engineering Division or within the Contractor's organization.

2.4.1 Submittal Processing Services

The submittal processing services required are as follows:

Before Pre-construction **Conference/Notice to Proceed (NTP)**

The following items shall be accomplished prior to the Pre-construction Conference:

- Receive contract information from Program Integration Office (PIO)
- Receive Reviewer designations from COTR
- Generate submittal log for tracking submittals

Submittal Receipt

- Submittals received from Construction Contractors at Mail Stop **465** (81209, Center Core)
- Enter the following data into the Submittal Log
 - * Date received
 - * Number of copies received
 - * Specification Section Number
 - * Submittal Description (**SD**)Number
 - * Description of Material
 - * Government action required
 - * Date to Reviewer
 - * Date due from Reviewer (5 days after receipt)
- Copy Technical Submittal Form and keep for record
- Copy Technical Submittal Form and distribute in accordance with the distribution indicated on the Technical Submittal Form by an • (asterisk)
- Attach action item form and deliver to Reviewer Mail Stop

The Performance Standard for completion of these activities is two workdays after receipt of the complete submittal.

Submittal Review (Reviewer)

- The Reviewer services are not performed under this Task 2.4.1. Contractor or Government personnel, depending on the work involved, may perform the services. When performed by Contractor personnel, they shall be done in accordance with Part III, Paragraph 2.5.

Submittal Processing - Distribution

- Submittal package received from COTR
- Review package for completeness
 - * Number of copies
 - * Reviewer stamp and initials
 - * COTR signature
- Reproduce copies of Technical Submittal Form and attach to each submittal
- Mark submittals for distribution (extra copies of submittal to be returned to the construction Contractor)
- Enter the following data in Submittal Log:
 - * Date received from COTR
 - * Action code
- Distribute as indicated on Technical Submittal Form
 - * Examples of distribution requirements:
 - * 126/Contract Files (Name) – receives one copy of the completed Technical Submittal Form
 - * 447/Engineering Files (1) – receives one copy of the submittal with a copy of the completed Technical Submittal Form attached
 - * 428/Inspection (2) – receives two copies of the submittal with a copy of the completed Technical Submittal Form attached
- Mail original Technical Submittal Form to Construction Contractor
- Mail within NASA shall be by Government messenger envelopes
- Mail to the Construction Contractor shall be by NASA mailing envelopes

The Performance Standard for Distribution is two workdays after receipt from the COTR.

2.4.2 Engineering Files and Library Support

The services provided under this task are to maintain the existing construction records system, incorporate new data to expand the database, and provide on request customer service. The Contractor shall provide services between the hours of 8 a.m. and 4:30 p.m. each Government workday.

2.4.2.1 Engineering Files

The Contractor shall provide records to the requestor within 1 workday of receipt of the request. The Contractor shall establish new contract files and electronic media cross reference records within two workdays from receipt of request. The Contractor shall prepare closed out contracts for

conversion to historical records within 30 calendar days after receipt of contract close out memorandum from the Office of Procurement.

2.4.2.2 Library Support

The Contractor shall post updated library references. The Performance Standard is 5 workdays after receipt of the revised reference material.

2.5 Construction Phase Support – CLIN 03

The Contractor shall perform construction management and inspection services to support construction contracts at NASA – LaRC, as directed by the Government in TOs.

2.5.1 Construction Management

The Contractor shall perform construction management services for LaRC construction projects. These services will include support of LaRC project managers during the pre-construction and construction phases by reviewing and making appropriate recommendations regarding: contract specifications and drawings prior to the package going to the LaRC Office of Procurement, submittals, schedules, cost estimates, construction Contractor performance, engineering changes, tests, and test plans.

Contract administration support may include evaluation of Contractor requests for information (RFIs), progress/payment reviews, contract documentation and correspondence review required for effective contract administration and evaluation of Contractor claims. The Contractor shall prepare and/or attest to the reasonableness of construction and contract change order estimates, review and attest to the reasonableness of construction completion schedules and attest to the reasonableness of progress payment requests.

The Contractor shall maintain and update the existing Task Order Management Information System (TOMIS) database. This electronic construction management database contains both construction contract data and cost accounting of Construction Management and Inspection hours charged to each construction contract.

For additional requirements and a more detailed summary of LaRC Construction Management practices, consult Sections 3 and 4 and appropriate Appendices of the Facility Systems Engineering Division Construction Management Manual dated April 30, 1998 (Exhibit B).

2.5.2 Construction Inspection

The Contractor shall provide inspection services for construction contracts that are generated from designs performed under this contract, other contracts, and in-house generated designs. Multidiscipline construction inspection services are required for LaRC construction contracts estimated at \$15M/year. The Contractor shall furnish inspection services including, but not limited to, inspection of: site

preparation, foundation, masonry, structural steel, interior wall partitions, metal work, pipefitting, floors, doors, mechanical systems, roofing, electrical systems (power and controls), welding (including high pressure systems), wind tunnel injection and control systems, wind tunnel modifications, painting and coating systems, heating, ventilation, and air conditioning systems.

Inspection services shall be provided at locations both on and off LaRC and shall be carried out to verify construction Contractor compliance with contract requirements. Construction inspectors shall inspect, check and witness, prepare logbooks, refer to submittals, issue deficiency notices (non-compliance), conduct wage surveys and attest to the reasonableness of progress payments and coordinate construction Contractor activities which interface with ongoing NASA activities. Inspectors shall coordinate construction Contractor requested digging permits, utility outages and other miscellaneous services deemed necessary to complete the assigned mission.

The Contractor shall notify construction Contractors of contract deviations and if corrective action is not taken within a reasonable period of time, notification of non-compliance shall be provided to the COTR for the specific construction contract. Other construction services include; pre-award/pre-construction services, construction contract administration support and technical consultation.

If, during the course of inspection, the Contractor becomes aware of deviations in the construction contract documents from building codes, laws and NASA regulations, the Contractor shall notify the COTR for the specific construction contract.

The Contractor shall provide radiographic monitoring services for the nondestructive testing (NDT) of welds, castings and piping. Monitors shall establish boundaries and maintain a record of the time, location, and radiation levels measured at representative locations on the critical area boundary. The Contractor shall comply with the NDT requirements and procedures listed in LAPG 1710.5.

In addition to technical onsite inspection, the Contractor shall maintain a system of records and logs by individual Task Order, which attests that the work was performed as specified. When specified by TO, the Contractor shall field verify the accuracy of construction Contractor-maintained as-constructed drawings.

All inspection documentation will be subject to periodic review by the Government.

The Contractor shall become familiar with the NASA LaRC safety clearance procedures listed in LaRC Handbook LAPG 1710.10. NASA will train and certify the Contractor to install and remove the red "GO NOT OPERATE" safety tags. These services shall only be provided for construction contracts being inspected by the Contractor. Approximately 95% of the inspection Task Orders will require this red tag service.

The Contractor shall prepare a listing of remaining construction contract requirements to be accomplished (hereafter referred to as the "punch list") for use by COTR for the specific construction contract during final walk-through inspections.

For additional requirements and a more detailed summary of required inspection services for LaRC, consult the NASA LaRC Construction Inspection Manual provided in Appendix 12 of Exhibit B.

2.5.3 Performance Evaluation for Construction Phase Services

2.5.3.1 Quality Metrics

The quality of the Contractor's performance on each Task Order will be evaluated in accordance with the following metrics, as applicable.

- (1) Were all critical inspection points witnessed and documented? (Critical Metric)
- (2) Did the inspector obtain all required permits?
- (3) Were weekly entries made in the inspection log?
- (4) Did the inspector coordinate all utility outages with facility personnel?
- (5) Was all non-complying work corrected or reported to the COTR? (Critical Metric)
- (6) Were responses provided for all submittals and RFIs?
- (7) Does the Construction Management log reflect all contract changes?
- (8) Did the Contractor develop acceptable Request for Change (RFC) scope definitions and cost estimates?
- (9) Did the Contractor submit highlighted inspection drawings with dates indicating when the work was inspected and accepted?

2.5.3.2 Schedule Metrics

The timeliness (schedule portion) of the Contractor's performance on each Task Order will be evaluated in accordance with the following metrics, as applicable.

- (1) Did the Contractor identify and report all non-complying work at a time when it could be corrected in a cost-effective manner? (Critical Metric)
- (2) Was the average elapsed time from when the Inspector received a progress payment from the Financial

Management Division to the time it was turned over to the COTR 10 calendar days or less?

- (3) Was the average process time for technical submittals 10 calendar days or less?
- (4) Was the average process time for Requests for Information 5 calendar days or less?
- (5) Did the Contractor submit the properly completed Construction Contract Completion Checklist to the COTR within 10 days or less after completion of the Contract Completion Punch List?

SECTION D - PACKAGING AND MARKING

D.1 PACKING, PACKAGING AND MARKING

- (a) The Contractor shall preserve, pack, and mark for shipment all items deliverable under this contract in accordance with good commercial practices and in accordance with instructions that may be specified by the Government in authorized TOs. Shipments shall be preserved, packed and marked to ensure both acceptance by common carrier and safe transportation at the most economical rate(s).
- (b) Markings for reports and other documentation shall be as set forth in Exhibit C, Contract Documentation Requirements.

SECTION E - INSPECTION AND ACCEPTANCE

E.1 FINAL INSPECTION AND ACCEPTANCE--ALTERNATE I (LaRC 52.246-94) (OCT 1992)

The Contracting Officer or his duly authorized representative, at destination, shall accomplish final inspection and acceptance of all items specified for delivery under this contract, including those items specified for delivery under Task Orders.

TION I - DELIVERIES OR PERFORMANCE

F.1 DELIVERY

- (a) The documentation and reports required by each TO shall be delivered F.O.B. Destination in accordance with the schedule specified.
- (b) The reports and documentation required by Exhibit C, Contract Documentation Requirements, shall be delivered at the times and to the places specified therein.

F.2 PERIOD OF PERFORMANCE (LaRC 52.211-91) (AUG 1997)

The period of performance of this contract shall be 12 months from the effective date of the contract.

NOTE: Reference the clause entitled "Options", located at **H.12** for contract option periods.

F.3 PLACES OF PERFORMANCE — ALTERNATE II (LaRC 52.211-98) (OCT 1992)

The places of performance shall be the Contractor's facility; NASA, Langley Research Center, Hampton, Virginia; and other sites as may be designated by TO.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING (NASA 1852.242-73) (JUL 1997)

- (a) The Contractor shall submit NASA Contractor Financial Management Reports on NASA Forms 533 in accordance with the instructions in NASA Policy Guidance (NPG) 9501.2, NASA Contractor Financial Management Reporting, and on the reverse side of the forms, as supplemented in the Schedule of this contract. The detailed reporting categories to be used, which shall correlate with technical and schedule reporting, shall be set forth in the Schedule. Contractor implementation of reporting requirements under this clause shall include NASA approval of the definitions of the content of each reporting category and give due regard to the Contractor's established financial management information system.
- (b) Lower level detail used by the Contractor for its own management purposes to validate information provided to NASA shall be compatible with NASA requirements.
- (c) Reports shall be submitted in the number of copies, at the time, and in the manner set forth in the Schedule or as designated in writing by the Contracting Officer. Upon completion and acceptance by NASA of all contract line items, the Contracting Officer may direct the Contractor to submit Form 533 reports on a quarterly basis only, report only when changes in actual cost incur, or suspend reporting altogether.
- (d) The Contractor shall ensure that its Form 533 reports include accurate subcontractor cost data, in the proper reporting categories, for the reporting period.
- (e) If during the performance of this contract NASA requires a change in the information or reporting requirements specified in the Schedule, or as provided for in Paragraph (a) or (c) of this clause, the Contracting Officer shall effect that change in accordance with the Changes clause of this contract.

**NOTE: CLAUSE G.1 ABOVE IS APPLICABLE TO COST TYPE TASK ORDERS, SEE
EXHIBIT C - CONTRACT DOCUMENTATION REQUIREMENTS.**

G.2 INCENTIVE FEE

Incentive Fee Report for Construction Phase Services

- (a) The Contractor's performance under the Quality, Schedule, and Cost metrics of this contract will be evaluated every six months by the Government in accordance with this clause.
- (b) The Contractor shall submit within 10 days after the end of each semiannual reporting period to the COTR and the CO, a fee determination report for the Construction Phase Services. The report shall contain the contract number, the date, and the total fee for the period in accordance with the instructions below and the Section I Clause 52.216-10, INCENTIVE FEE. The fee computed will be subjected to Government review and approval. The Contractor shall use the negotiated Target Cost, the specified schedule and quality metrics, and the Incentive Fee Table below for determining the appropriate fee for the period:

Incentive Fee Table

<u>Fee Category</u>	<u>Percentage of Target Cost</u>
Maximum Fee	2%
Target Fee	5%
Minimum Fee	2%

The negotiated Target Cost will serve as the cost standard for each TO. The quality and schedule metrics are defined in the SOW Paragraph 2.5.3. "Applicable" metrics as used below are those required to be performed by the individual TO.

The semi-annual report should appear as follows and be completed using the directions below.

Sample Fee Determination Report:

Task Order No.(1)	Target Cost(2)	Actual Cost(3)	Were All Critical Metrics Met(4) See Note	Number of Applicable Quality Metrics(5)	Number of "Yes" Answers to Quality Metrics (6)	Number of Applicable Schedule Metrics (7)	Number of "Yes" Answers to Schedule Metrics (8)

Step 1: List all of the TOs completed during the reporting period in Column 1.

Step 2: List the Target Cost for each TO in Column 2.

Step 3: List the Actual Cost for each TO in Column 3.

Step 4: Indicate whether all of the critical metrics for a task were met in column 4. If the answer is "Yes" for that task, proceed on to Step 5. If the answer is "No", proceed on but enter a 0 in columns 6 and 8. Note: When the answer in column 4 is "No", assume that all available metrics (nine for quality and five for schedule) are applicable when filling in columns 5 for quality and 7 for schedule.

Step 5: Indicate the number of Applicable Quality Metrics for each TO in column 5

Step 6: Indicate the number of Quality Metrics, which the Contractor met in Column 6

Step 7: Indicate the number of Applicable Schedule Metrics for each TO in column 7

Step 8: Indicate the number of Schedule Metrics which the Contractor met in Column 8.

Step 9: The Contractor shall calculate the following:

- A. The dollar amounts of Maximum Fee, Target Fee, and Minimum Fee. These are computed by multiplying the Target Cost by the rates for each of the fees as listed in the Incentive Fee Table.
- B. The Percentage of Quality Metrics Met by dividing the sum of column 6 by the sum of column 5. Locate that number in the left-hand column of the following table and read the corresponding value of the Quality Fee Adjustment Factor.

Percentage of Quality Metrics Met	Quality Fee Adjustment Factor
.95 - 1.00	1.60
.90 - .94	1.46
.85 - .89	1.33
.80 - .84	1.00
Below .80	0.00

- C. The Percentage of Schedule Metrics Met by dividing the sum of column 8 by the sum of column 7. Locate that number in the left-hand column of the following table and read the corresponding value of the Schedule Fee Adjustment Factor.

Percentage of Schedule Metrics Met	Schedule Fee Adjustment Factor
.95 - 1.00	1.60
.90 - .94	1.46
.85 - .89	1.33
.80 - .84	1.00
Below .80	0.00

- D. The Target Quality Fee by multiplying the Target Fee calculated in Step 9A by 0.55, which is the weighting factor for Quality.
- E. The Quality Fee by multiplying the Target Quality Fee calculated in Step 9D by the Quality Fee Adjustment Factor determined in Step 9B.
- F. The Target Schedule Fee by multiplying the Target Fee calculated in Step 9A by 0.20, which is the weighting factor for Schedule.
- G. The Schedule Fee by multiplying the Target Schedule Fee calculated in Step 9F by the Schedule Fee Adjustment Factor determined in Step 9C.

Step 10: The fee associated with cost will be calculated using a 75/25 fee adjustment formula which represents the relative shares that the Government and the Contractor will receive for all cost savings. In other words, the Government will receive 75% of all cost savings and the Contractor will receive 25% of all cost savings. Likewise, the Contractor will be penalized on fee at the same rate for cost overruns. The calculation is as follows:

- A. Compute the Cost Variance:
 $\text{Cost Variance} = \text{Total Target Cost (sum of Column 2)} - \text{Total Actual Cost (sum of Column 3)}$
- B. Compute the Cost Fee:
 $\text{Cost Fee} = \text{Contractor's share (.25)} \times \text{Cost Variance}$

NOTE: When the Total Actual Cost is greater than the Total Target Cost a negative number will result for the Cost Variance and the Cost Fee. The negative sign will be used when calculating the Total Incentive Fee in Step 11.

Step 11: Total Incentive Fee = Quality Fee (Step 9E) + Schedule Fee (Step 9G) + Cost Fee (Step 10)

NOTES:

1. If the Total Incentive Fee calculated in Step 11 is less than the Minimum Fee calculated in Step 9A, the Minimum Fee (Step 9A) value is used.
2. If the Total Incentive Fee calculated in Step 11 is more than the Maximum Fee calculated in Step 9A, the Maximum Fee (Step 9A) value is used.

G.3 INCENTIVE FEE AUDIT

The Government reserves the right to audit actual cost records to verify accuracy for computation of fee for the cost metric. Upon any such audit, the Government may adjust the fee claimed for the current period or previous periods to reflect the correct actual cost. The Contractor shall maintain accounting records that show costs for each Task Order.

G.4 SUBMISSION AND PAYMENT OF VOUCHERS

(a) Payment for CLIN 1 and CLIN 2

(1) Public vouchers for CLIN 1 and CLIN 2 shall include a reference to this contract NAS1-98128 (AE). All vouchers for CLIN 1 shall also include the TO Number. The Contractor's taxpayer identification number shall be included on the invoice. All payments shall be made pursuant to Section I Clause 52.232-10 Payments under Fixed-Price Architect-Engineer Contracts (AUG 1987).

(2) Requests for progress payments will be in accordance with Clause 1852.232-82 entitled "Submission of Requests for Progress Payments" (MAR 1989).

(b) Payment for CLIN 3

(1) Public vouchers for payment of cost and fee shall include a reference to this contract NAS1-98128 (AE) and the TO number. The Contractor's taxpayer identification number shall be included on the invoice.

(2) Cost vouchers shall be submitted for approval through the cognizant DCAA office. Fee vouchers shall be submitted for approval through the Contracting Officer.

(3) Provisional incentive fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional incentive fee payments will **be** made to the Contractor on monthly basis. The total amount of incentive fee available in an evaluation period that will be provisionally paid is the lesser of 80 percent or the prior period's evaluation score.

(4) The Contractor shall prepare vouchers as follows:

A. One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment.

B. Seven copies of SF 1034A, SF 1035A, or equivalent Contractor's attachment.

C. The Contractor shall mark SF 1034A copies 1, 2, 3, 4, and such other copies **as** may be directed by the Contracting Officer by insertion in the memorandum block the names and addresses as follows:

- (i) Copy 1 NASA Contracting Officer;
- (ii) Copy 2 Auditor;
- (iii) Copy 3 Contractor
- (iv) Copy 4 Contract administration office; and
- (v) Copy 5 Project management office (when required by the NASA

Contracting Officer).

(c) Invoice Address

The address as set forth below is the designated payment office for fixed-price, cost and fee vouchers for purposes of the Prompt Payment clause of this contract. The Contracting Officer's office is the designated billing office for fixed price progress payments for purposes of the Prompt Payment clause. Invoices shall be forwarded to the following address and marked with the contract number NAS1-98128 (AE) and the specific TO number (if applicable).

NASA, Langley Research Center
Attn: Financial Management Division, M/S 175
Hampton, VA 23681-0001

G.5 PROCEDURES FOR ISSUING TASK ORDERS

(a) The Contracting Officer, or his designated representative, shall issue Task Orders (TO) to the Contractor, for CLINs No. 01 and 03 providing specific authorization or direction to perform work within the scope of the contract. TOs issued under CLIN 01 shall be firm fixed-price. TOs issued under CLIN 03 shall be cost-plus-incentive-fee type.

(b) The Contractor may incur costs under this contract in performance of Task Orders and Task Order modifications issued in accordance with this procedure. No other costs are authorized for CLIN 01 and CLIN 03 unless otherwise specified in the contract or expressly authorized by the Contracting Officer.

(c) TOs shall be issued on FSED Task Order Form 1500.2. Task Orders shall contain, as a minimum, the following information:

- (1) Date of Task Order and contract number NAS1-98128
 - (2) Statement of Work and supporting documentation
 - (3) Deliverables
 - (4) Required completion date and /or delivery schedule
 - (5) Authorized dollars (includes cost plus fee on cost type TOs)
 - (6) Applicable special instructions or provisions
 - (7) Signatures - Technical Project Engineer (TPE), Supervisor, and Task Area Manager
- (TAM)
- (8) Authorization for performance (Contracting Officer or designated representative)

(d) Upon receipt of a Task Order, the Contractor shall submit a task plan that includes his proposed technical approach, period of performance, firm fixed-price or appropriate cost information (including estimate of hours applied to the hourly rates from the Section B of Contract Schedule, other direct costs (ODC's), and any other information specified), for execution of the task.

(e) For CLIN 01, A-E Design Tasks, the Contractors cost estimate shall be structured to differentiate between the elements included in The 6% Fee Limitation for AE Contracts (Ref. FAR 15.903(d)(1)(ii) and those services that are excluded.

(f) After review of the task plan, and discussions or negotiation with the contractor, the Contracting Officer or his designated representative will issue a revision to the TO which authorizes the Contractor to proceed with the task.

(g) The Contracting Officer or his designated representative may amend task orders in the same manner in which they are issued.

(h) Emergency tasks may be issued verbally or electronically by the Contracting Officer or his designated representative, and the Contractor shall begin work on Emergency Tasks immediately. Emergency requests will be followed by a TO within two working days, utilizing the procedure outlined above, except that the Contractor may proceed with the task during negotiation.

G.6 CONTRACT CLOSEOUT (LaRC 52.242-90) (JUN 1988)

(a) Reassignment--After receipt, inspection, and acceptance by the Government of all required articles and/or services, and resolution of any pending issues raised during the Period of Performance, this contract will be reassigned to the NASA Langley Research Center Contracting Officer for Contract Closeout. All transactions subsequent to the physical completion of the contract should, therefore, be addressed to the said Contracting Officer at NASA Langley Research Center, Mail Stop 126, who may be reached by telephone at (757) 864-2435.

(b) "Quick Closeout"--Paragraph (9) of the Allowable Cost and Payment clause of this contract addresses the "Quick Closeout Procedure" delineated by Subpart 42.7 of the Federal Acquisition Regulation (FAR). It should be understood that the said procedure applies to the settlement of indirect costs for a specific contract in advance of the determination of final indirect cost rates when the amount of unsettled indirect cost to be allocated to the contract is relatively insignificant. Therefore, the "Quick Closeout" procedure does not preclude the provisions of paragraph (d) of the Allowable Cost and Payment clause nor does it constitute a waiver of final audit of the Contractor's Completion Voucher.

(c) Completion Voucher Submittal--Notwithstanding the provisions of the Allowable Cost and Payment clause, as soon as practicable after settlement of the Contractor's indirect cost rates applicable to performance of the contract, the Contractor shall submit a Completion Voucher as required by the aforesaid clause. The Completion Voucher shall be supported by a cumulative claim and reconciliation statement and executed NASA Forms 778, Contractor's Release, and 780, Contractor's Assignment of Refunds, Rebates, Credits, and Other Amounts. Unless directed otherwise by the Contracting Officer for

Contract Closeout, the Contractor shall forward the said Completion Voucher directly to the cognizant Government Agency to which audit functions under the contract have been delegated.

G.7 PROVIDING FACILITIES TO CONTRACTORS (LaRC 52.245-90) (AUG 1997)

(a) In accordance with FAR 45.302-1, it is policy of the Government that Contractors shall furnish all facilities required for performing Government contracts. "Facilities" include real property and plant equipment including personal property such as general purpose off-the-shelf equipment, machine tools, test equipment, furniture and vehicles. "Facilities" do not include material, special test equipment, special tooling or agency-peculiar property.

(b) In keeping with the policy set forth in FAR 45.302-1, the Government will not provide NEW "facilities," except as provided for in the Statement of Work.

(c) However, the Government will provide EXISTING facilities as listed in G.9 and Part II, Section 1.10. Any of these existing facilities that reach the end of their useful life during the contract period, or which are beyond economical repair, shall be replaced by the Contractor, if the facilities are still needed for contract performance.

(d) Notwithstanding the "Allowable Cost and Payment" clause of this contract, cost of facilities are not an allowable cost except when charged to this contract in accordance with your approved accounting system.

G.8 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (NASA 18-52.245-71) (JULY 1997)

(a) The Government property described in the clause at 1852.245-77, List of Installation Provided Property and Services, shall be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property. Under this clause, the Government retains accountability for, and title to, the property, and the Contractor assumes the user responsibilities outlined in NHB 4200.1D, NASA Equipment Management Manual. The Contractor shall establish and adhere to a system of written procedures for compliance with these user responsibilities. Such procedures must include holding employees liable, when appropriate, for loss, damage, or destruction of Government property.

(b)(1) The official accountable recordkeeping, physical inventory, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this contract provides for the Contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

(i) The Contractor's purchase order shall require the vendor to deliver the property to the installation central receiving area;

(ii) The Contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area;

(iii) The Contractor shall establish a record of the property as required by FAR 45.5 and 1845.5 and furnish to the Industrial Property Officer a DD Form 1149 Requisition and Invoice/Shipping Document (or installation equivalent) to transfer accountability to the Government within 5 working days after receipt of the property by the Contractor. The Contractor is accountable for all Contractor-acquired property until the property is transferred to the Government's accountability.

(iv) Contractor use of Government property at an off-site location and off-site Subcontractor use require advance approval of the contracting officer and notification of the SEMO. The Contractor shall assume accountability and financial reporting responsibility for such property. The Contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR Part 45.5 until its return to the installation.

(2) After transfer of accountability to the Government, the Contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph

(a) and document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the contracting officer.

G.9 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (NASA 18-52.245-77) (JUL 1997)

In accordance with the clause at 1852.245-71, Installation-Accountable Government Property, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, in the performance of this contract within the physical borders of the installation which may include buildings and space owned or directly leased by NASA in close proximity to the installation, if so designated by the Contracting Officer.

(a) Office space, work area space, and utilities. Government telephones are available for official purposes only: pay telephones are available for Contractor employees for unofficial calls.

(b) General- and special-purpose equipment, including office furniture.

(1) Equipment to be made available is listed in EXHIBIT E. The Government retains accountability for this property under the clause at 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.

(2) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records as required by the clause at 1852.245-71, Installation-Accountable Government Property.

(3) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, without the Contracting Officer's prior written approval.

(c) Publications and blank forms stocked by the installation.

(d) Safety and fire protection for Contractor personnel and facilities.

(e) Installation service facilities: NONE

(f) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.

(g) Cafeteria privileges for Contractor employees during normal operating hours.

(h) Building maintenance for facilities occupied by Contractor personnel.

(i) Moving and hauling for office moves, movement of large equipment, and delivery of supplies. Moving services shall be provided on-site, as approved by the Contracting Officer.

(j) The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, Installation-Accountable Government Property.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 RESERVED

H.2 SITE VISIT

Offerors or quoters are urged and expected to inspect the site(s) where services for each individual TO are to be performed, and to satisfy themselves regarding all general, local and TO specific conditions that may affect the cost of TO performance, to the extent that the information is reasonably obtainable. In no event shall failure to inspect the site(s) constitute grounds for a claim after TO issuance.

H.3 SECURITY PROGRAM/FOREIGN NATIONAL EMPLOYEE INVESTIGATIVE REQUIREMENTS (LaRC 52.204-91) (AUG 1997)

Prior to reporting to Langley Research Center (LaRC) to perform under a contract or grant, each Foreign National shall have approval for access to LaRC facilities from NASA Headquarters, Office of Space Science and Aeronautics (Code IS). A copy of the access authorization request shall be provided

to the LaRC Chief of Security. Additionally, an investigation by the Government shall be completed on each Foreign National Contractor prior to reporting to LaRC to perform under a contract or grant. A properly executed "Name Check Request" (NASA Form 531) and a completed "applicant" fingerprint card shall be submitted to the LaRC Security Office, Mail Stop 182, for each Foreign National Contractor at least 75 days prior to the estimated entry on duty date. The NF 531 and fingerprint card may be obtained from the LaRC Security Office. If the access approval is obtained from NASA Headquarters prior to completion of the investigation, and the Contracting Officer requires a Foreign National to work on LaRC, an escort request may be considered by the LaRC Chief of Security.

H.4 WORK SCHEDULE—ON-SITE ONLY

In order that the necessary and proper inspection of the Contractor's work may be effectively accomplished, and to assure the availability of required Government interface, the Contractor shall schedule work performance hereunder so as to be compatible with the established workweek and hours of work observed by the Government organization having cognizance over the work being performed.

H.5 OBSERVATION OF REGULATIONS AND IDENTIFICATION OF CONTRACTOR'S EMPLOYEES (LaRC 52.21 1-104) (MAR 1992)

(a) Observation of Regulations--In performance of that part of the contract work which may be performed at Langley Research Center or other Government installation, the Contractor shall require its employees to observe the rules and regulations as prescribed by the authorities at Langley Research Center or other installation.

(b) Identification Badges--At all times while on LaRC property, the Contractor shall require its employees, subcontractors and agents to wear badges which will be issued by the NASA Contract Badge and Pass Office, located at 1 Langley Boulevard (Building No. 1228). Badges shall be issued only between the hours of 6:30 a.m. and 4:30 p.m., Monday through Friday. Contractors will be held accountable for these badges, and may be required to validate outstanding badges on an annual basis with the NASA LaRC Security Office. Immediately after employee termination or contract completion, badges shall be returned to the NASA Contract Badge and Pass Office.

H.6 INCORPORATION OF SECTION K OF THE PROPOSAL BY REFERENCE (LaRC 52.215-107) (JUN 1998)

Pursuant to FAR 15.204-1(b), the completed Section K of the proposal dated July 29, 1998 is hereby incorporated herein by reference.

H.7 EVIDENCE OF INSURANCE

Prior to performing under this contract, the Contractor shall submit to the Contracting Officer evidence of the insurance coverage required by the Section I NASA Clause 1852.228-75 entitled "Minimum Insurance Coverage" (such as a Certificate of Insurance or other confirmation). If the Government extends the term of the contract, the Contractor shall present such evidence to the Contracting Officer prior to performing under the extension.

H.8 VIRGINIA AND LOCAL SALES TAXES (LaRC 52.229-92) (APR 1992)

To perform this contract, the Contractor must be knowledgeable of relevant state and local taxes when making purchases of tangible personal property. The Contractor shall refrain from paying nonapplicable taxes or taxes where an exemption exists, but shall pay applicable taxes that are reimbursable pursuant to FAR 31.205-41, Taxes. Even though title to property purchased under this contract may pass to the Government and the price is reimbursable under contract cost principles, such transactions do not in themselves provide tax immunity to the Contractor. Therefore, within 30 days after the effective date of this contract, the Contractor shall request from the Virginia State Tax Commission a

ruling on any tax exemptions that may be applicable to purchases made under this contract. The Contractor shall provide all facts relevant to the situation and shall pursue an interpretation of the law that is most favorable to both the Contractor and the Government.

H.9 YEAR 2000 COMPLIANCE (MAY 1998)

(a) Definition: "Year 2000 compliant", as used in this clause, means that the information technology (hardware, software and firmware, including embedded systems or any other electro-mechanical or processor-based systems used in accordance with its associated documentation) accurately processes date and date-related data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date and date-related data with it.

(b) Any information technology provided, operated and/or maintained under this contract is required to be Year 2000 compliant. To ensure this result, the Contractor shall provide documentation describing how the information technology items or services demonstrate Year 2000 compliance, consisting of: the manufacturers compliance certification for any software or hardware used in performance of this contract. Furthermore, the Contractor shall ensure that all designs delivered as a result of individual TOs issued under this contract, contain Year 2000 compliance language for any information technology items as defined in (a) above, imbedded into those designs.

(c) The Contractor warrants that any information technology items or services provided under this contract that involve the processing of date and date-related data are Year 2000 compliant. If the contract requires that specific listed products must perform as a system in accordance with the foregoing warranty, then that warranty shall apply to those listed products as a system.

(d) The remedies available under this warranty shall include repair or replacement, at no additional cost to the Government, of any provided items or services whose non-compliance is discovered and made known to the Contractor in writing within 90 days after acceptance. In addition, all other terms and limitations of the Contractor's standard commercial warranty or warranties shall be available to the Government for the information technology items or services acquired under this contract. Nothing in this warranty shall be construed to limit any rights or remedies the Government may otherwise have under this contract with respect to defects other than Year 2000 performance.

H.10 TERMINATION

The FAR clause 52.249-7, Termination (Fixed-Price Architect & Engineer) (APR 1984), applies to the firm fixed-price portion of this contract (CLINs 01 and 02) as a whole, and to each individual fixed-price TO issued under this contract. The FAR Clause 52.249-6 Termination (Cost-Reimbursement) (SEP 1996), applies to the cost-plus-incentive-fee portion (CLIN 03) of this contract as a whole, and to each individual CPIF TO issued under this contract. Thus, an individual TO may be terminated either for default or for the convenience of the Government.

H.11 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.222-42) (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

THIS STATEMENT IS FOR INFORMATION ONLY: IT IS NOT A WAGE DETERMINATION

<u>Employee Class</u>	<u>Hourly Wage</u>
Secretary I	9.02
Secretary II	10.09
Secretary III	11.24
Secretary IV	12.49
Secretary V	13.84
General Clerk I	6.55
General Clerk II	7.36
General Clerk III	8.03
General Clerk IV	9.02
Word Processor I	8.03
Word Processor II	9.02
Lead Word Processor	10.09
Inspector (all disciplines)/Quality Assurance Specialist	15.28
Radiographic Monitor/Safety technician	13.84
Drafter I	8.03
Drafter II	9.02
Drafter III	10.09
Drafter IV	12.49
Surveying Technician	10.75
Surveying Aide	7.36

FRINGE BENEFITS

- Annual Leave - Receives 13 days paid leave for service up to 3 years; 20 days for 3 to 15 years service; and 26 days for 15 years service or over.
- Sick Leave - Receives 13 days paid leave per year
- Holidays - Receives 10 paid holidays per year.
- Health Insurance - Government pays up to 60% of health insurance.
- Group Life Insurance - Government pays two-thirds of life insurance rate premiums.
- Retirement - The Government provides three retirement plans identified as the Civil Service Retirement System (CSRS), the Federal Employees Retirement System (FERS), and the CSRS Offset. Under the CSRS, the Government contributes 7% of the employees' base pay towards the retirement benefit and 1.45% towards Medicare. Under the FERS, the Government contributes 11.4% of the employees' base pay towards a basic benefit plan, 6.2% to Social Security, 1.45% towards Medicare, and 1% (plus matching contributions of up to 4% of basic pay, depending on employees' contributions) to a thrift savings plan. Under the CSRS Offset, the Government contributes 0.8% of the employees' base pay towards the retirement benefit, 6.2% to Social Security, and 1.45% towards Medicare.

Part-time Federal employees receive pro rata annual leave, sick leave, holiday leave, health insurance, and group life insurance benefits based on the number of hours worked.

H.12 OPTIONS

Priced Options/Extended Term

Pursuant to the Section I clause entitled "Option to Extend the Term of the Contract (**MAR 1989**)," the Contractor hereby grants to the Government options to extend the term of the contract for 4 additional periods of 12 months each. Such options are to be exercisable by issuance of a unilateral modification. Upon exercise of such option(s) by the Government, the following items will be increased by the amount specified below for each option period.

<u>Item</u>	<u>First Option Period</u>	<u>Second Option Period</u>	<u>Third Option Period</u>	<u>Fourth Option Period</u>
Period of Performance (Ref. F2)	12 months	12 months	12 months	12 months
CLIN 01, Fixed Price (Ref. 8.4)				
Minimum	\$10,000	\$10,000	\$10,000	\$10,000
Maximum	\$1,800,000	\$1,800,000	\$1,800,000	\$1,800,000
CLIN 02, Fixed Price (REF. B.3)				
	\$458,649	\$460,549	\$462,450	\$464,351
CLIN 03, Cost Limitation (Ref. B.4)				
Minimum	\$50,000	\$50,000	\$50,000	\$50,000
Maximum	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000

	FULLY BURDENED LABOR RATES – CLIN 01							
<u>Labor Category</u>	<u>Year 2</u>		<u>Year 3</u>		<u>Year 4</u>		<u>Year 5</u>	
<u>Contractor Site</u>	<u>Straight/Overtime</u>		<u>Straight/Overtime</u>		<u>Straight/Overtime</u>		<u>Straight/Overtime</u>	
Project Manager	90.24	90.24	93.81	93.81	97.52	97.52	101.35	101.35
Senior Engineer/Architect	78.66	78.66	81.75	81.75	85.00	85.00	88.33	88.33
Engineer/Architect	74.13	74.13	77.07	77.07	80.11	80.11	83.24	83.24
Junior Engineer/Architect	57.02	57.02	59.26	59.26	61.62	61.62	64.03	64.03
General Clerk I	20.57	24.61	20.67	24.71	20.75	24.78	20.85	24.88
General Clerk II	25.32	30.29	25.42	30.39	25.52	30.49	25.64	30.61
General Clerk III	31.48	37.66	31.63	37.81	31.76	37.94	31.88	38.06
General Clerk IV	35.19	42.10	35.34	42.25	35.49	42.39	35.64	42.55
Secretary I	26.02	31.12	26.14	31.24	26.24	31.34	26.36	31.46
Secretary II	30.27	36.21	30.42	36.36	30.54	36.48	30.67	36.61
Secretary III	34.71	41.51	34.85	41.66	35.00	41.81	35.15	41.95
Secretary IV	40.55	48.50	40.71	48.66	40.89	48.84	41.06	49.02
Secretary V	42.55	50.90	42.75	51.10	42.92	51.27	43.11	51.46
Word Processor I	28.04	33.54	28.16	33.66	28.27	33.77	28.39	33.89
Word Processor II	31.60	37.81	31.74	37.94	31.86	38.06	32.00	38.20
Word Processor III	35.39	42.33	35.54	42.48	35.68	42.63	35.84	42.78
Drafter I	28.24	33.78	28.36	33.90	28.47	34.01	28.59	34.13
Drafter II	31.76	37.99	31.90	38.14	32.03	38.27	32.18	38.41
Drafter III	39.92	47.75	40.10	47.93	40.25	48.08	40.44	48.27

Drafter IV	48.51	58.03	48.71	58.22	48.91	58.42	49.13	58.64
Engineering Technician IV (Designer I)	51.44	61.53	51.66	61.75	51.88	61.97	52.10	62.19
Engineering Technician V (Designer II)	60.07	71.86	60.34	72.13	60.59	72.38	60.84	72.63
Engineering Technician VI (Designer III)	74.25	88.81	74.55	89.11	74.87	89.43	75.19	89.75
<u>Government Site</u>								
CM/Inspector	51.78	51.78	53.81	53.81	55.92	55.92	58.11	58.11
Supervisor Inspector	46.92	46.92	48.76	48.76	50.70	50.70	52.69	52.69
Secretary I	21.90	27.01	22.00	27.10	22.08	27.18	22.18	27.28
Secretary II	25.48	31.42	25.60	31.54	25.70	31.64	25.82	31.76
Secretary III	29.22	36.03	29.33	36.14	29.47	36.28	29.58	36.39
Secretary IV	34.13	42.09	34.27	42.22	34.41	42.36	34.56	42.52
Secretary V	35.82	44.17	35.98	44.33	36.14	44.48	36.28	44.63
Inspector	40.15	49.51	40.32	49.68	40.48	49.84	40.65	50.01
Radiograph Monitor	21.45	26.46	21.55	26.55	21.63	26.63	21.74	26.74

	LABOR RATES – CLIN 03 (Excluding Fee)							
<u>Labor Category</u>	Year 2		Year 3		Year 4		Year 5	
<u>Contractor Site</u>	Straight/Overtime		Straight/Overtime		Straight/Overtime		Straight/Overtime	
Project Manager	82.04	82.04	85.28	85.28	88.65	88.65	92.14	92.14
Senior Engineer/Architect	71.51	71.51	74.32	74.32	77.27	77.27	80.30	80.30
Engineer/Architect	67.39	67.39	70.06	70.06	72.83	72.83	75.67	75.67
Junior Engineer/Architect	51.84	51.84	53.87	53.87	56.02	56.02	58.21	58.21
General Clerk I	19.73	23.60	19.82	23.69	21.10	25.21	21.19	25.30
General Clerk II	24.26	29.02	24.37	29.13	25.96	31.01	26.06	31.11
General Clerk III	30.19	36.11	30.31	36.23	32.29	38.57	32.42	38.70
General Clerk IV	33.75	40.37	33.89	40.51	36.11	43.14	36.27	43.30
Secretary I	24.95	29.85	25.06	29.96	26.71	31.91	26.82	32.02
Secretary II	29.03	34.73	29.16	34.86	31.05	37.09	31.18	37.22
Secretary III	33.28	39.81	33.43	39.96	35.62	42.55	35.78	42.71
Secretary IV	38.86	46.49	39.04	46.67	41.60	49.69	41.76	49.85
Secretary V	40.81	48.82	40.99	49.00	43.67	52.17	43.85	52.35
Word Processor I	26.89	32.17	27.00	32.28	28.76	34.36	28.89	34.49
Word Processor II	30.31	36.26	30.44	36.39	32.42	38.73	32.54	38.85
Word Processor III	33.93	40.59	34.07	40.73	36.29	43.35	36.45	43.51
Drafter I	27.07	32.38	27.18	32.49	28.96	34.60	29.09	34.73
Drafter II	30.46	36.44	30.58	36.56	32.60	38.94	32.72	39.06
Drafter III	38.29	45.80	38.45	45.96	40.95	48.92	41.11	49.08
Drafter IV	46.51	55.64	46.71	55.84	49.77	59.45	49.97	59.65
Engineering Technician IV (Designer I)	49.32	59.00	49.54	59.22	52.78	63.05	52.99	63.26
Engineering Technician V (Designer II)	57.60	68.90	57.85	69.15	61.63	73.62	61.90	73.89
Engineering Technician VI (Designer III)	71.19	85.16	71.50	85.47	76.16	90.98	76.48	91.30

Government Site								
CM/Inspector	47.07	47.07	48.92	48.92	50.84	50.84	52.83	52.83
Supervisor Inspector	42.65	42.65	44.33	44.33	46.09	46.09	47.90	47.90
Secretary I	21.00	25.90	21.09	25.99	22.48	27.68	22.57	27.77
Secretary II	24.44	30.14	24.54	30.24	26.13	32.17	26.24	32.28
Secretary III	28.01	34.54	28.13	34.66	29.98	36.91	30.12	37.05
Secretary IV	32.71	40.34	32.86	40.49	35.01	43.10	35.15	43.24
Secretary V	34.35	42.36	34.50	42.51	36.75	45.25	36.91	45.41
Inspector	38.30	47.38	39.78	49.21	41.36	51.11	43.00	53.08
Radiograph Monitor	20.47	25.29	21.27	26.25	22.10	27.27	22.98	28.33

H.13 SAFETY AND HEALTH (NASA 1852.223-70) (MAR 1997)

(a) The Contractor shall take all reasonable safety and health measures in performing under this contract. The Contractor shall comply with all Federal, State, and local laws applicable to safety and health in effect on the date of this contract and with the safety and health standards, specifications, reporting requirements, and provisions set forth in the contract Schedule.

(b) The Contractor shall take or cause to be taken any other safety and health measures the Contracting Officer may reasonably direct. To the extent that the Contractor may be entitled to an equitable adjustment for those measures under the terms and conditions of this contract, the equitable adjustment shall be determined pursuant to the procedures of the changes clause of this contract: provided, that no adjustment shall be made under this Safety and Health clause for any change for which an equitable adjustment is expressly provided under any other provision of the contract.

(c) The Contractor shall immediately notify and promptly report to the Contracting Officer or a designee any accident, incident, or exposure resulting in fatality, lost-time occupational injury, occupational disease, contamination of property beyond any stated acceptable limits set forth in the contract Schedule, or property loss of \$25,000 or more arising out of work performed under this contract. The Contractor is not required to include in any report an expression of opinion as to the fault or negligence of any employee. Service contractors (excluding construction contracts) shall provide quarterly reports specifying lost-time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the contract Schedule. The Contractor shall investigate all work-related incidents or accidents to the extent necessary to determine their causes and furnish the Contracting Officer a report, in such form as the Contracting Officer may require, of the investigative findings and proposed or completed corrective actions.

(d)(1) The Contracting Officer may notify the Contractor in writing of any noncompliance with this clause and specify corrective actions to be taken. The Contractor shall promptly take and report any necessary corrective action.

(2) If the Contractor fails or refuses to institute prompt corrective action in accordance with subparagraph (d)(1) of this clause, the Contracting Officer may invoke the stop-work order clause in this contract or any other remedy available to the Government in the event of such failure or refusal.

(e) The Contractor (or subcontractor or supplier) shall insert the substance of this clause, including this paragraph (e) and any applicable Schedule provisions, with appropriate changes of designations of the parties, in subcontracts of every tier that (1) amount to \$1,000,000 or more (unless the Contracting Officer makes a written determination that this is not required), (2) require construction, repair, or alteration in excess of \$25,000, or (3) regardless of dollar amount, involve the use of hazardous materials or operations.

(f) Authorized Government representatives of the Contracting Officer shall have access to and the right to examine the sites or areas where work under this contract is being performed in order to determine the adequacy of the Contractor's safety and health measures under this clause.

(g) As a part of the Contractor's safety plan (and health plan, when applicable) and to the extent required by the Schedule, the Contractor shall furnish a list of all hazardous operations to be performed, including operations indicated in paragraphs (a) and (b) of this clause, and a list of other major or key operations required or planned in the performance of the contract, even though not deemed hazardous by

the Contractor. NASA and the Contractor shall jointly decide which operations are to ~~be~~ considered hazardous, with NASA as the final authority. Before hazardous operations commence, ~~the~~ Contractor shall submit for NASA concurrence either or both of the following, as required by the contract Schedule or by the Contracting Officer:

- (1) Written hazardous operating procedures for all hazardous operations.
- (2) Qualification Standards for personnel involved in hazardous operations.

NOTICE: THE FOLLOWING CLAUSES ARE APPLICABLE TO THIS CONTRACT AS A WHOLE, INCLUDING BOTH FIRM-FIXED PRICE WORK AND COST-PLUS-INCENTIVE-FEE WORK APPLICABLE TO THIS CONTRACT.

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE:

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
52.202-1	Definitions (OCT 1995)—Alternate I (APR 1984)
52.203-3	Gratuities (APR 1984)
52.203-5	Covenant Against Contingent Fees (APR 1984)
52.203-6	Restrictions on Contractor Sales to the Government (JUL 1995)
52.203-7	Anti-Kickback Procedures (JUL 1995)
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (JAN 1997)
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity (JAN 1997)
52.203-12	Limitation on Payments to Influence Certain Federal Transactions (JUN 1997)
52.204-4	Printing/Copying Double-Sided on Recycled Paper (JUN 1996)
52.209-6	Protecting the Government's Interest when Subcontracting with Contractors Debarred?Suspended, or Proposed for Debarment (JUL 1995)
52.211-15	Defense Priority and Allocation Requirements (SEP 1990)
52.215-2	Audit and Records--Negotiation (AUG 1996)
52.215-8	Order of Precedence-Uniform Contract Format (OCT 1997)
52.215-10	Price Reduction for Defective Cost or Pricing Data (OCT 1997)
52.215-12	Subcontractor Cost or Pricing Data (OCT 1997)
52.215-15	Termination of Defined Benefit Pension.Plans (OCT 1997)
52.215-16	Facilities Capital Cost of Money (OCT 1997)
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits Other than Pensions (OCT 1997)
52.215-19	Notification of Ownership Changes (OCT 1997)
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data-Modifications (OCT 1997)
52.216-22	Indefinite Quantity (OCT 1995)
52.219-8	Utilization of Small, Small Disadvantaged, and Women-Owned Small Business Concerns (JUN 1997)
52.219-9	Small, Small Disadvantaged, and Women-Owned Small Business Subcontracting Plan (AUG 1996) Alternate II (MAR 1996)
52.219-16	Liquidated Damages--Subcontracting Plan (OCT 1995)
52.222-1	Notice to the Government of Labor Disputes (FEB 1997)
52.222-3	Convict Labor (AUG 1996)

52.222-4	Contract Work Hours and Safety Standards Act—Overtime Compensation (JUL 1995)
52.222-26	Equal Opportunity (APR 1984)
52.222-35	Affirmative Action for Special Disabled and Vietnam Era Veterans (APR 1984)
52.222-36	Affirmative Action for Handicapped Workers (APR 1984)
52.222-37	Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era (JAN 1988)
52.222-41	Service Contract Act of 1965, As Amended (MAY 1989)
52.223-2	Clean Air and Water (APR 1984)
52.223-5	Pollution Prevention and Right-To-Know Information (MAR 1997)
52.223-6	Drug-Free Workplace (JAN 1997)
52.223-14	Toxic Chemical Release Reporting (OCT 1996)
52.227-1	Authorization and Consent (JUL 1995)--Alternate I (APR 1984)
52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (APR 1984)
52.227-17	Rights In Data-Special Works (JUN 1987) – (as modified by NASA FAR Supplement 1852.227-17)
52.228-5	Insurance -Work on a Government Installation (JAN 1997)
52.232-9	Limitation on Withholding of Payments (APR 1984)
52.232-17	Interest (JUN 1996)
52.232-23	Assignment of Claims (JAN 1986)
52.232-33	Mandatory Information for Electronic Funds Transfer Payment (AUG 1996)
52.233-1	Disputes (OCT 1995)--Alternate I (DEC 1991)
52.233-3	Protest After Award (AUG 1996)
52.237-2	Protection of Government Buildings, Equipment, and Vegetation (APR 1984)
52.242-13	Bankruptcy (JUL 1995)
52.244-6	Subcontracts for Commercial Items and Commercial Components (APR 1998)
52.252-6	Authorized Deviations in Clauses (APR 1984)
52.253-1	Computer Generated Forms (JAN 1991)

NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
1852.204-76	Security Requirements for Unclassified Automated Information Resources (SEP 1993)
1852.219-75	Small, Small Disadvantaged, and Women-Owned Small Business Subcontracting Reporting (JUL 1997)
1852.219-76	NASA 8 Percent Goal (JUL 1997)
1852.223-70	Safety and Health (MAR 1997)
1852.227-70	New Technology (JUL 1995)
1852.237-70	Emergency Evacuation Procedures (DEC 1988)
1852.242-72	Observation of Legal Holidays (AUG 1992)
1852.243-71	Shared Savings (MAR 1997)

12 CLAUSES IN FULL TEXT

THE CLAUSES LISTED BELOW FOLLOW IN FULL TEXT:

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
52.216-18	Ordering (OCT 1995)
52.217-9	Option to Extend the Term of the Contract (MAR 1989)

52.223-9	Certification and Estimate of Percentage of Recovered Material Content for EPA Designated Items (OCT 1997)
1852.209-71	Limitation of Future Contracting (DEC1988)
1852.215-84	Ombudsman (OCT 1996)
1852.228-75	Minimum Insurance Coverage (OCT 1988)
1852.245-73	Financial Reporting of NASA Property in the Custody of Contractors (SEP 1996)
1852.245-76	List of Government-Furnished Property (OCT 1988)

1.3 ORDERING (FAR 52.216-18) (OCT 1995)

- (a) Any supplies and services to be furnished under this contract shall be ordered by issuance of task orders or delivery orders by the individuals or activities designated in the Schedule. Such orders may be issued from the effective date of contract award, through the end of contract period of performance.
- (b) All task orders or delivery orders are subject to the terms and conditions of this contract. In the event of conflict between a task order or task order and this contract, the contract shall control.
- (c) If mailed, a task order or delivery order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

1.4 OPTION TO EXTEND THE TERM OF THE CONTRACT (FAR 52.217-9) (MAR 1989)

- (a) The Government may extend the term of this contract by unilateral written notice to the Contractor within the current contract period of performance; provided, that the Government shall give the Contractor a preliminary notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.
- (b) If the Government exercises this option, the extended contract shall be considered to include this option provision.
- (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 60 months.

1.5 CERTIFICATION AND ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA DESIGNATED ITEMS (FAR 52.223-9) (OCT 1997)

- (a) As required by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962(j)(2)(C)), the Contractor shall execute the following certification:

CERTIFICATION

I, _____ (name of certifier), am an officer or employee responsible for the performance of this contract and hereby certify that the percentage of recovered material content for EPA Designated Items was at least the amount required by the applicable contract specifications.

[Signature of the Officer or Employee]

[Typed Name of the Officer or Employee]

 [Title]

 [Name of Company, Firm, or Organization]

 [Date]

(End of certification)

(b) The Contractor also shall estimate the percentage of recovered materials actually used in the performance of this contract. The estimate is in addition to the certification in paragraph (a) of this clause.

ESTIMATE

EPA Designated Item	Total Dollar Value of EPA Designated Item	Percentage of Recovered Material Content *

Where applicable, also include the percentage of postconsumer material content.

(c) The Contractor shall submit this certification and estimate upon completion of the contract to Contracting Officer, Mail Stop 126, Langley Research Center, Hampton, VA 23681-2199.

1.6 , LIMITATION OF FUTURE CONTRACTING (NASA 1852.209-71) (DEC 1988)

Pursuant to FAR 36.209, no contract for the construction of a project shall be awarded to the firm that designed the project or its subsidiaries or affiliates, as a prime Contractor or a subcontractor at any tier, except with the approval of the head of the agency or authorized representative.

1.7 OMBUDSMAN (NASA 1852.215-84) (OCT 1996)

An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and Contractors during the preaward and postaward phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the Contracting Officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the Contracting Officer for resolution. If resolution cannot be made by the Contracting Officer, interested parties may contact the installation ombudsman, Belinda Adams, direct inquiries to Sandra S. Ray at (757) 864-2428. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Deputy Administrator for Procurement, Thomas S. Luedtke, at 202-358-2090. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

1.8 MINIMUM INSURANCE COVERAGE (NASA 1852.228-75) (OCT 1988)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract:

- (a) Worker's compensation and employer's liability insurance as required by applicable Federal and state workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical. The employer's liability coverage shall be at least \$100,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.
- (b) Comprehensive general (bodily injury) liability insurance of at least \$500,000 per occurrence.
- (c) Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury liability and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.
- (d) Comprehensive general and motor vehicle liability policies shall contain a provision worded as follows: "The insurance company waives any right of subrogation against the United States of America which may arise by reason of any payment under the policy."
- (e) When aircraft are used in connection with performing the contract, aircraft public and passenger liability insurance of at least \$200,000 per person and \$500,000 per occurrence for bodily injury, other than passenger liability, and \$200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least \$200,000 multiplied by the number of seats or passengers, whichever is greater.

1.9 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (NASA 1852.245-73) (SEP 1996)

- (a) The Contractor shall submit annually a NASA Form 1018, NASA Property in the Custody of Contractors, in accordance with 18-45.505-14, the instructions on the form, and subpart 1845-71. Subcontractor use of NF 1018 is not required by this clause; however, the Contractor shall include data on property in the possession of subcontractors in the annual NF 1018.
- (b) If administration of this contract has been delegated to the Department of Defense, the original of NASA Form 1018 shall be submitted to the NASA, LaRC Financial Management Officer, Mail Stop 175 and three copies shall be sent concurrently through the DOD Property Administrator to the address below. If the contract is administered by NASA, the original of NF 1018 shall be submitted to the LaRC Financial Management Office and three copies shall be sent concurrently and directly to the following office:

ATTN: INDUSTRIAL PROPERTY OFFICE
NASA LANGLEY RESEARCH CENTER
MAIL STOP 377
HAMPTON VA 23681-0001

- (c) The annual reporting period shall be from October 1 of each year to September 30 of the following year. The report shall be submitted by October 31. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 31. The Contracting Officer may, in the Government's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set-aside. If the Contractor fails to submit annual NF 1018 reports when due, such reserve shall be withheld until the Contracting Officer has

determined that the required reports have been received by the Government. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(d) A final report is required within 30 days after disposition of all property subject to reporting when the contract performance period is complete.

1.10 LIST OF GOVERNMENT-FURNISHED PROPERTY (NASA 1852.245-76) (OCT 1988)

For performance of work under this contract, the Government will make available Government property identified below or in Section J, EXHIBIT F of this contract on a no-charge-for-use basis. The Contractor shall use this property in the performance of this contract at LaRC, and at other location(s) as may be approved by the Contracting Officer. Under the FAR 52.245 Government property clause of this contract, the Contractor is accountable for the identified property.

NOTICE: THE FOLLOWING CLAUSES ARE APPLICABLE ONLY TO THE FIRM-FIXED PRICE PORTION (CLINs 01 and 02) OF THIS CONTRACT.

I.11 LISTING OF CLAUSES INCORPORATED BY REFERENCE:

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
52.222-43	Fair Labor Standards Act and Service Contract Act-Price Adjustment (Multiple Year and Option Contracts) (MAY 1989)
52.232-10	Payments under Fixed-Price Architect – Engineer Contracts (AUG 1987)
52.232-16	Progress Payments (JUL 1991)
52.232-18	Availability of Funds (APR 1984)
52.232-26	Prompt Payment for Fixed-Price Architect-Engineer Contracts (JUN 1997)
52.242-14	Suspension of Work (APR 1984)
52.242-15	Stop-Work Order (AUG 1989)
52.243-1	Changes—Fixed Price (AUG 1987)—Alternate III (APR 1984)
52.244-4	Subcontractors and Outside Associates and Consultants (APR 1984)
52.245-2	Government Property (Fixed-Price Contracts) (DEC 1989)
52.246-4	Inspection of Services--Fixed-Price (AUG 1996)
52.247-34	F.o.b. Destination (NOV 1991)
52.249-7	Termination (Fixed-Price Architect-Engineer) (APR 1984)

NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
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NONE

1.12 CLAUSES IN FULL TEXT

THE CLAUSES LISTED BELOW FOLLOW IN FULL TEXT:

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
52.236-22	Design Within Funding Limitations (APR 1984)
52.236-23	Responsibility of the Architect-Engineer Contractor (APR 1984)
52.236-24	Work Oversight in Architect-Engineer Contracts (APR 1984)
52.236-25	Requirements for Registration of Designers (APR 1984)

1.13 DESIGN WITHIN FUNDING LIMITATIONS (FAR 52.236-22) (APR 1984)

- (a) The Contractor shall accomplish the design services required under this contract so as to permit the award of a contract, using standard Federal Acquisition Regulation procedures for the construction of the facilities designated at a price that does not exceed the estimated construction contract price as set forth in paragraph (c) below. When bids or proposals for the construction contract are received that exceed the estimated price, the Contractor shall perform such redesign and other services as are necessary to permit contract award within the funding limitation. These additional services shall be performed at no increase in the price of this contract. However, the Contractor shall not be required to perform such additional services at no cost to the Government if the unfavorable bids or proposals are the result of conditions beyond its reasonable control.
- (b) The Contractor will promptly advise the Contracting Officer if it finds that the project being designed will exceed or is likely to exceed the funding limitations and it is unable to design a usable facility within these limitations. Upon receipt of such information, the Contracting Officer will review the Contractor's revised estimate of construction cost. The Government may, if it determines that the estimated construction contract price set forth in this contract is so low that award of a construction contract not in excess of such estimate is improbable, authorize a change in scope or materials as required to reduce the estimated construction cost to an amount within the estimated construction contract price set forth in paragraph (c) below, or the Government may adjust such estimated construction contract price. When bids or proposals are not solicited or are unreasonably delayed, the Government shall prepare an estimate of constructing the design submitted and such estimate shall be used in lieu of bids or proposals to determine compliance with the funding limitation.
- (c) The estimated construction contract price for the project described in this contract is specified in each individual task order.

1.14 RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR (FAR 52.236-23) (APR 1984)

- (a) The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications, and other services.
- (b) Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract, and the Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligent performance of any of the services furnished under this contract.
- (c) The rights and remedies of the Government provided for under this contract are in addition to any other rights and remedies provided by law.
- (d) If the Contractor is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

1.15 WORK OVERSIGHT IN ARCHITECT-ENGINEER CONTRACTS (FAR 52.236-24) (APR 1984)

The extent and character of the work to be done by the Contractor shall be subject to the general oversight, supervision, direction, control, and approval of the Contracting Officer.

1.16 REQUIREMENTS FOR REGISTRATION OF DESIGNERS (FAR 52.236-25) (APR 1984)

The design of architectural, structural, mechanical, electrical, civil, or other engineering features of the work shall be accomplished or reviewed and approved by architects or engineers registered to practice in the particular professional field involved in a State or possession of the United States, in Puerto Rico, or in the District of Columbia.

NOTICE: THE FOLLOWING CLAUSES ARE APPLICABLE ONLY TO THE COST REIMBURSEMENT ORDERS ISSUED UNDER THIS CONTRACT.

1.17 LISTING OF CLAUSES INCORPORATED BY REFERENCE:

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
52.216-7	Allowable Cost and Payment (MAR 1997)
52.216-10	Incentive Fee (MAR 1997)
52.222-28	Equal Opportunity Preaward Clearance of Subcontracts (APR 1984)
52.230-2	Cost Accounting Standards (APR 1996)
52.230-3	Disclosure and Consistency of Cost Accounting Practices (APR 1996)
52.230-6	Administration of Cost Accounting Standards (APR 1996)
52.232-20	Limitation of Cost (APR 1984)
52.242-1	Notice of Intent to Disallow Costs (APR 1984)
52.242-3	Penalties for Unallowable Costs (JAN 1997)
52.243-2	Changes-Cost Reimbursement (AUG 1987) Alternate I (APR 1984)
52.242-15	Stop-Work Order (AUG 1989) Alternate I (APR 1984)
52.244-2	Subcontracts (Cost-Reimbursement and Letter Contracts) (FEB 1997) Alternate I (AUG 1996)
52.245-5	Government Property (Cost-Reimbursement, Time-and-Material, or Labor-Hour Contracts) (JAN 1986) (DEVIATION) (JUL 1995)
52.246-5	Inspection of Services - Cost-Reimbursement (APR 1984)
52.249-6	Termination (Cost Reimbursement) (SEP 1996)
52.249-14	Excusable Delays (APR 1984)

NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
1852.216-89	Assignment and Release Forms (JUL 1997)
1852.242-70	Technical Direction (SEP 1993)
1852.242-73	NASA Contractor Financial Management Reporting (JUL 1997)

1.18 CLAUSES IN FULL TEXT

THE CLAUSES LISTED BELOW FOLLOW IN FULL TEXT:

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
52.222-2	Payment for Overtime Premiums (JUL 1990)
52.242-4	Certification of Final indirect Costs (JAN 1997)

1.19 PAYMENT FOR OVERTIME PREMIUMS (FAR 52.222-2) (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed \$0 or the overtime premium is paid for work -

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall -

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

1.20 CERTIFICATION OF FINAL INDIRECT COSTS (FAR 52.242-4) (JAN 1997)

(a) The Contractor shall -

(1) Certify any proposal to establish or modify final indirect cost rates;

(2) Use the format in paragraph (c) of this clause to certify; and

(3) Have the certificate signed by an individual of the Contractor's organization at a level no lower than a vice president or chief financial officer of the business segment of the Contractor that submits the proposal.

(b) Failure by the Contractor to submit a signed certificate, as described in this clause, may result in final indirect costs at rates unilaterally established by the Contracting Officer.

(c) The certificate of final indirect costs shall read as follows:

CERTIFICATE OF FINAL INDIRECT COSTS

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief

1. All costs included in this proposal (identify proposal and date) to establish final indirect cost rates for (identify period covered by rate) are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements applicable to the contracts to which the final indirect cost rates will apply; and;

2. This proposal does not include any costs which are expressly unallowable under applicable cost principles of the FAR or its supplements.

Firm: _____

Signature: _____

Name of Certifying Official:

Title: _____

Date of Execution: _____

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS**SECTION J - LIST OF ATTACHMENTS**

Exhibit A	LaRC Digging Permit Procedures, 2 pages
Exhibit B	FSED Construction Management Manual, 227 pages
Exhibit C	Contract Documentation Requirements, 5 pages
Exhibit D	Register of Wage Determination and Fringe Benefits #94-2544, Rev 16, Sept. 29, 1998 and Collective Bargaining Agreement between Sverdrup Technology, Inc. and International Brotherhood of Electrical Workers, AFL-CIO, Feb. 29, 1996, 35 pages
Exhibit E	List of Government-Furnished Property, 14 pages
Exhibit F	Installation-Accountable Government Property, 3 pages
Exhibit G	Items That Must Contain Recycled Content for FY98, 1 page
Exhibit H	Approved Subcontracting Plan, dated July 29, 1998, 19 pages